

**What is claimed is**

1. A versatile optical storage driving device for multimedia audio/video system having a CD driver, a picture viewer, a DVD driver, a digital video recorder (DVR), a FM radio and a MP3 music CD player monolithically integrated in a single device, comprising:

a video/audio input/output selector, connected to a built-in/external device for inputting/outputting video/audio signal;

a video/audio encoder/decoder, for encoding input video/audio signal before storing and for decoding stored video/audio signal before outputting to said built-in/external device through said video/audio input/output selector;

a microprocessor, for controlling the operation of said optical storage device/memory card reader in accordance with a key-in or pre-stored instruction and the read/write of the BIOS data of a computer's mother board;

an optical storage device, for reading/writing the encoded video/audio signal and data signal from said microprocessor through a bus switch;

a memory card reader, for reading/writing the encoded video/audio signal and data from said microprocessor through said bus switch connected to said microprocessor;

a display controller, connected to said microprocessor for controlling the display of a status display;

a status display, for displaying the operation status of said memory card reader, said personal computer and said optical storage driving device;

a power amplifier, connected to said video/audio encoder/decoder for amplifying said input signal and decoded output audio signal; and

a speaker, connected to said power amplifier for outputting said amplified audio signal.

2. The optical storage driving device as set forth in claim 1, wherein said optical storage driving device further comprises a power-on detector, connected to a power supply on a personal computer (PC) and a bus switch, for determining the power-on status of said PC, said microprocessor controls said bus switch to release the standard interface between said PC and said optical storage driving device so as to conduct operation without an operating system (OS) of PC when PC is off, while once a PC power-on status is detected, said microprocessor controls said bus switch to resume the function of said standard interface so as to operate said optical storage driving device through said PC.

3. The optical storage driving device as set forth in claim 1, wherein said optical storage driving device is of stand-alone type.

4. The optical storage driving device as set forth in claim 1, wherein said optical storage driving device is of portable type.
5. The optical storage driving device as set forth in claim 1, wherein said optical storage driving device can be built-in to a personal computer or externally connected thereto.
6. The optical storage driving device as set forth in claim 1, wherein said built-in/external device can be a video/audio signal providing device and a video/audio signal player including television, projector, plasma display panel, liquid crystal display and monitor of a personal computer.
7. The optical storage driving device as set forth claim 1, wherein said optical storage device including CD-ROM, CD-R, CD-RW, DVD-ROM, DVD-R, DVD-RW, DVD+R, DVD+RW and DVD-RAM servers.
8. The optical storage driving device as set forth in claim 1, wherein said status display includes one of vacuum fluorescent display (VFD) and liquid crystal display (LCD).
9. The optical storage driving device as set forth in claim 1, wherein said display is used to display the mode selection, adjustment controlling, and status indicator of said

functions.

10. The optical storage driving device as set forth in claim 2, wherein said personal computer includes one of a desktop computer, notebook computer, tablet computer and Macintosh computer.
11. The optical storage driving device as set forth in claim 5, wherein said personal computer includes one of a desktop computer, notebook computer, tablet computer and Macintosh computer.
12. The optical storage driving device as set forth in claim 2, wherein said standard interface can be one of the ATAPI-IDE, the serial ATA or SCSI, the USB 1.1/2.0 built-in or externally connected to a personal computer and a IEEE 1394 standard interface.
13. The optical storage driving device as set forth in claim 2, wherein said power-on detector is used to detect the voltage on the power supply unit of a personal computer or to detect the computer host reset signal (HRST) on the connecting bus between said personal computer and said panel controller so as to confirm the on status of the power supply.

14. The optical storage driving device as set forth in claim 1, further comprising a connecting device equipped with a power connector, a CD analogue audio output connector and a Sony-Phillips digital interface (SPDIF) output connector, while said connecting device has a dominating bus and an input/output bus so as to increase the expandability of said optical storage driving device.
15. The optical storage driving device as set forth in claim 1, wherein said optical storage driving device is powered by DC or AC power supply.